

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A node device which newly joins a network formed by a plurality of existing nodes, the node device comprising:

a virtual connection establisher unit configured to establish a plurality of virtual connections, each virtual connection being between the node device and one of with the plurality of existing nodes;

an average a weighted metric value calculator unit configured to calculate a weighted an average metric value through each of the virtual connections, the weighted metric value corresponding to a plurality of routes to one node of the plurality of existing nodes via one of each of the virtual connections, and the weighted metric value being weighted according to a number of adjacent nodes to the one node; and

a total metric value calculator unit configured to calculate a total metric value corresponding to weighted metric values calculated for each of the virtual connections; and

a connection establisher unit configured to establish a connection with [[the]] an existing node of the plurality of existing nodes corresponding to which the virtual connection having a smallest average total metric value is established.

Claim 2 (Currently Amended): The node device according to claim 1, further comprising:

an acquirer unit configured to acquire, from any of the plurality of existing nodes, a node-node connection information of an adjacent node to any other of the plurality of existing nodes node forming the network, from the any node; and wherein the average weighted metric value calculator unit is configured to calculate the average weighted metric value in accordance with the node-node connection information.

Claim 3 (Currently Amended): The node device according to claim 2, wherein the node-node connection information includes a node ID for identifying the adjacent node, a metric value of a route between ~~the any node each of the plurality of existing nodes~~ and the adjacent node, and a number of nodes adjacent to the adjacent node.

Claim 4 (Previously Presented): The node device according to claim 3, wherein the metric value includes at least one of a number of hops, network bandwidth, communication costs, delay, load, MTU, or reliability.

Claim 5 (Currently Amended): The node device according to claim 3, wherein the acquirer unit is configured to notify, to ~~the any each of the plurality of existing nodes node~~, a type of a metric value or a combination of metric values to be included in the node-node connection information.

Claim 6 (Currently Amended): A method for generating a network topology in which a new node joins a network formed by a plurality of existing nodes, the method comprising: establishing a plurality of virtual connections, each virtual connection being between the new node and one each of the plurality of existing nodes; calculating a weighted an average metric value for each of the virtual connections, the weighted metric value corresponding to a plurality of routes from the new node to one node of the plurality of existing nodes via one each of the virtual connections, and the weighted metric value being weighted according to a number of adjacent nodes to the one node; and calculating a total metric value corresponding to weighted metric values calculated for each of the virtual connections; and

establishing a connection between the new node and [[the]] an existing node corresponding to which the virtual connection having a smallest total average metric value is established, so that the new node joins the network.